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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/024,243 | 12/21/2001 | Yoshiro Shiokawa | 111522 | 3419 |

25944 7590 , 03/22/2005

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| EXAMINER |
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JOHNSTON, PHILLIP A

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| ART UNIT | PAPER NUMBER |
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2881

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,243

Applicant(s)

SHIOKAWA ET AL.

Examiner

Phillip A. Johnston

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

1. This Office Action is submitted in response to RCE / Amendment filed 1-05-2005, wherein claims 1-8 have been amended. Claims 1-10 are pending.

Claims Rejection - 35 U.S. C. 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,5, and 6 are rejected under 35 U.S.C. 102 (b) as being clearly anticipated by Mitsui, U.S. Patent No. 4, 948,962.

Mitsui (962) discloses a mass spectrometer that includes the following;

(a) A means for introducing plural reactant gases which can bring about an energy transfer reaction with background ions and excited molecules, thus quenching (absorbing the excess energy) the background ions and excited molecules which interfere with the metal ions being detected in the mass spectrometer, as recited in claims 1,2,5, and 6. See Column 2, line 54-63; Column 3, line 6-51; and Column 12, line 47-60;

(b) The use of a metal ion source, as recited in claims 1,2,5, and 6. See Column 3, line 2-5;

(c) The use of plural reactant gases, as recited in claims 1,2,5, and 6. See Column 10, line 3-12; and Figures 7 and 8 below;

transmitting measured spectra to controller 38. See Column 10, line 17-37.

FIG. 7

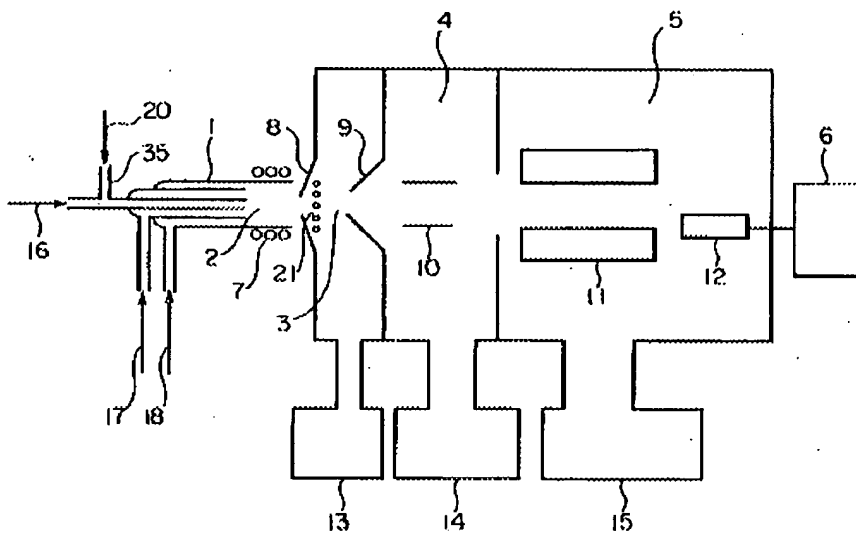
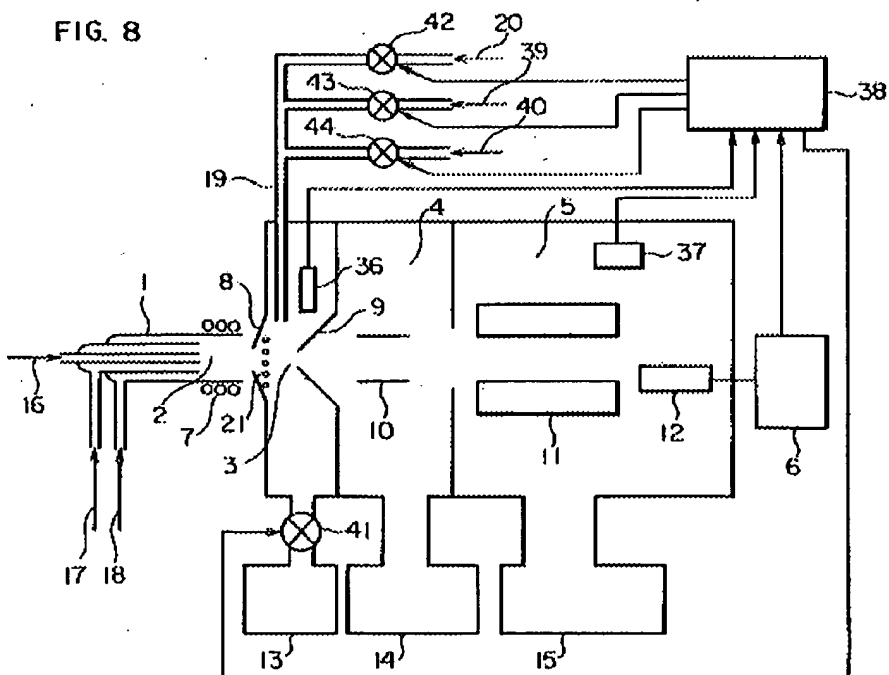


FIG. 8



Claims Rejection – 35 U.S.C. 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3,4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4, 948,962, to Mitsui, in view of Sheehan, U.S. Patent No. 6,744,041.

Mitsui (962) as described above discloses nearly all the limitations of claims 3,4, and 7-10 but fails to teach the use of plural emitters as recited in claims 3,4, and 7-10.

However, Sheehan (041) discloses the use of two Maldi ion sources 22a and 22b, as well as, two electrospray sources 21a and 21b, arranged off-axis, as recited in claims 3,4, and 7-10. See Column 7, line 47-67; and Figures 2B and 2 C below.

Therefore it would have been obvious to one of ordinary skill in the art that the plasma ion source mass spectrometer apparatus and method of Mitsui (962) can be modified to use the plural ionization sources of Sheehan (041), to provide election of a specific source of ions, which can be accomplished in a time dependent manner by controlling the generation process of ions (e.g. pulse of laser, application of voltage to needle).

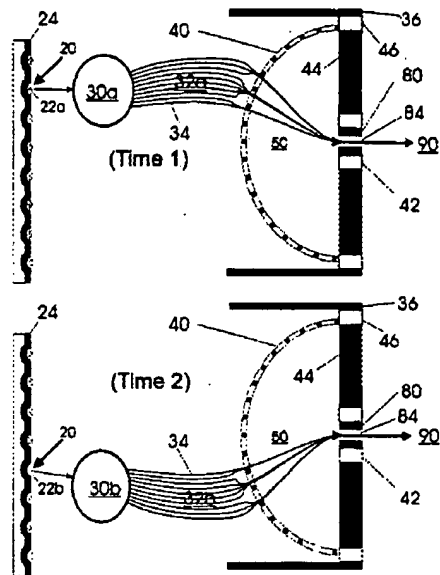


FIG. 2B

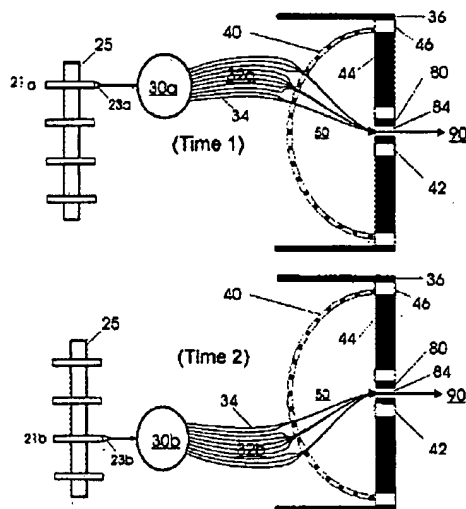


FIG. 2C

Conclusion

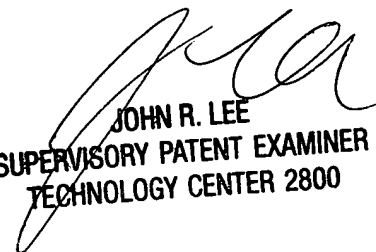
6. Any inquiry concerning this communication or earlier communications should be

directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (571) 272-2477. The fax phone number for the organization where the application or proceeding is assigned is 703 872 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJ

March 11, 2005


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800